



**CITY OF BOULDER**

**IT GOVERNANCE AND DECISION-MAKING STRUCTURE**

**(Approved May 2011)**

## **I. Citywide IT Mission, Goals and Guiding Principles**

The following mission, goal and principle statements are applied throughout the IT governance and decision-making processes, as well as in the daily technology-focused operations of city departments. They ensure that strategies, policies, practices and projects are aligned and support the overall business objectives of the city.

### **A. Mission**

The effective and efficient delivery of city services to the Boulder community and organization is maximized through the seamless integration of people and technology.

### **B. Goals**

- a. Technology improves access to city information and services and the quality of our customers' experience.
- b. Technology services and decision-making align with citywide priorities, meet customer needs, and support sustainability.
- c. Technology maximizes the efficiency and effectiveness of city operations.
- d. Technology is used as a catalyst for innovation.
- e. Technology is a key element of citywide infrastructure and is current, secure and reliable – ensuring customer confidence.

## C. Guiding Principles

1. “Technology and the Business”	
Principles Statement	Narrative
<p>a. <b><u>REQUIRED: A COMPELLING BUSINESS CASE FOR AUTOMATION:</u></b> Technology-based solutions will be deployed that meet business needs, enhance our customers’ experience, have a satisfactory cost/benefit ratio and provide the best value to the city.</p>	<p>We don’t implement “technology for technology’s sake”. In setting IT investment priorities, we rely on solid business cases that identify compelling service enhancement opportunities, persuasive cost vs. benefit arguments, and prove sustainable over the long-term. How the customer benefits is fundamental to our decision making. As such, we realize that technology is not always the answer and consider process improvement opportunities before relying solely on automation.</p>
<p>b. <b><u>CAPTURING PROCESS IMPROVEMENT OPPORTUNITIES:</u></b> Business processes should be evaluated for redesign opportunities before they are automated. Both customers and IT should be included as part of this redesign effort.</p>	<p>What better time to take a look at business process improvement opportunities than before major automation efforts? Many of the news headlines about failed or over-budget system implementations can be tied to an unwillingness to change business processes to “meet the software capabilities in the middle”, as well as over-customization that leaves systems too complex and costly to maintain. We take a deep look at “as-is” processes and evaluate how different technologies may require changes to our business practices. Working together, both functional and technical team members have important perspectives to offer in visioning these process improvement opportunities.</p>
<p>c. <b><u>MANAGING DATA AS A VALUED ASSET:</u></b> Active management and sharing of data across departments should be pursued when implementing new technologies and business applications. When possible, data should be captured once in order to avoid cost, duplication of effort and potential for error.</p>	<p>Data is a tangible asset. Its accuracy and accessibility is what makes it valuable. When inaccurate or hard to obtain, it can become not only inefficient and ineffective to use -- but dangerous. As we implement new systems and consider business process changes, we look for opportunities to integrate processes and associated data to not only capture efficiencies, but avoid redundant and disparate information that leads to poor decision making and negative customer experiences.</p>

2. Partnership	
Principles Statement	Narrative
a. <b><u>INTERNAL PARTNERSHIP:</u></b> An attitude of collaboration, cooperation and transparency will be fostered among city departments when planning for and providing technology-based services. Consistently-applied IT governance structures, roles, responsibilities and decision making processes will serve as the foundation for this relationship.	Departments have different operational missions. But, we are all part of “one Boulder”. We reflect this by cooperating in the planning and use of technology. By being transparent about our individual needs and plans, we gain awareness of partnership opportunities and become more sensitive to the challenges of our peers. This becomes critical in recognizing trade-offs and negotiating priorities with limited technology investment and operating resources. By respecting governance roles and processes, we create an open, dependable “venue” for making thoughtful, successful automation decisions for our customers.
b. <b><u>EXTERNAL PARTNERSHIP:</u></b> Shared IT services with other jurisdictions will be pursued when customer service improvement, business process synergies, streamlining and IT architecture alignment can be achieved.	Though our intergovernmental partners have a different constituent focus, the technology infrastructure and applications we employ can often be very similar. Recognizing that political, cultural and operational differences can heavily impact interagency collaboration success, we aren’t averse to exploring opportunities to collaborate with other organizations in our technology investments and operations – particularly where it has the potential to improve efficiency and our customers’ experience (e.g. a “one stop shop” for common customers).

3. Standards	
Principles Statement	Narrative
a. <b><u>“CONTEMPORARY” ... NOT “BLEEDING EDGE”</u></b> : Contemporary, but proven, technologies will be implemented.	New, “bleeding edge” technologies that don’t have a strong foothold in the marketplace and among standards organizations can be risky. While we aren’t averse to new, innovative automation tools and techniques, we do our due diligence to ensure that their risk profiles are acceptable before proceeding. Likewise, we avoid inertia when new technologies and approaches offer the potential for improvement in our customers’ experience and our overall efficiency. Our architecture standards, procurement and project management practices support this philosophy.
b. <b><u>GREATER SUSTAINABILITY THROUGH TECHNICAL STANDARDS</u></b> : Technology resources will be leveraged efficiently and effectively through the adoption of common technical standards. Enforced IT architecture standards will frame procurement requirements and interfaces between systems.	Consistently-applied technical standards foster the goals of security, interoperability, high system performance, long-term sustainability and cost efficiency. Keeping these goals paramount, our architecture standards undergo consistent review and future planning to ensure they consider new technical innovations and don’t overly choke innovation. Hardware and software adheres to best business practices and, whenever possible, open (vendor-independent) standards to minimize proprietary solutions. Where custom application or interface development is required, IT and vendor software developers will apply modern, efficient methods and labor saving tools in a collaborative application development environment. Once established, we uphold technical architecture and system management standards with our new technology acquisitions, system enhancements and ongoing operations.
c. <b><u>LOOK “OUTWARD” BEFORE “INWARD”</u></b> : The acquisition and integration of top quality, commercial-off-the-shelf (COTS) or open source software requiring minimal customization should be favored over in-house development to foster efficiency, sustainability and speed the delivery of new business applications.	Why reinvent the wheel? In concert with being open to business process change, we take a thorough look at commercial and open source software options before charging into major in-house software development projects. Except where a thorough business analysis proves otherwise, our internal software development activities should focus instead on opportunities to integrate systems and their data and ease access to information. The commercial and open source marketplace and the tools they employ are increasingly versatile and reflect industry best practices. We should gain perspectives on how to use these software options to our maximum advantage before looking “within” – then, have the fortitude to make the business process changes to ensure the software’s successful use.

3. Standards (cont.)	
Principles Statement	Narrative
<p>d. <b><u>INFRASTRUCTURE AS A FOUNDATION:</u></b> A solid, modern technology infrastructure is the fundamental building block of the city's overall IT architecture to support reliability, performance and security of the city's information assets.</p>	<p>Our technology infrastructure is literally the “highway” that our multi-modal application “vehicles” rely on to operate. Without reliable and secure networks, servers, workstations, systems software, security systems and central databases, we don’t have the ability to support and sustain automation. Our technology investment decisions focus first on establishing and sustaining a flexible infrastructure. These systems will scale to allow employees, citizens and business partners to satisfy ever-increasing business automation needs.</p>
<p>e. <b><u>IMPORTANCE OF EFFECTIVE PROJECT MANAGEMENT:</u></b> Information technology projects and resource allocation will be managed using standard project management tools and approaches.</p>	<p>How technology projects are managed determines their implementation success. We utilize a common toolkit for managing each project’s human and technical resources, costs, timing, quality, communications and risks. The best practices of the Project Management Institute (PMI) serve as a solid foundation for this common approach. A versatile but standards-based project management toolkit recognizes that each project is different in terms of its key drivers (e.g. quality vs. timing). We also tailor project management roles and assignments to the unique mix of technical and functional knowledge required for each project.</p>

## II. IT Governance Roles, Responsibilities and Process

The city's IT governance process sets the framework for decisions impacting citywide technology strategic direction, policies and investment priorities. The central body in the governance process is the **IT Steering Committee (ITSC)**, composed of city management representatives from all departments and chaired by the Director of IT. ITSC receives direction from the city's Management Team (M-Team) led by the City Manager. The M-Team is guided by the City Council's priorities and direction.

The **Technology Advisory Committee (TAC)** includes IT and director-appointed departmental liaisons and is designed to ensure that proper technical and operational coordination exists between stakeholders across the organization. TAC and the IT Department are supported by other, focused technology teams chartered by the ITSC (e.g. Architecture Committee, Web Managers' Team, GIS Team, etc).

**DIAGRAM 1: IT Governance Process**



The primary roles and responsibilities for ITSC, TAC and the IT Department are as follows:

**TABLE 1: Roles and Responsibilities – ITSC, TAC and IT**

<b>IT Steering Committee (ITSC)</b>	<b>Technology Advisory Committee (TAC)</b>	<b>IT Department (IT)</b>
Policy direction based on citywide IT mission, goals and guiding principles	Raise policy questions for consideration by ITSC	Chairs ITSC and facilitates TAC
Annual IT program goal-setting; validation of project priorities	Policy implementation <ul style="list-style-type: none"> <li>• Develop operational procedures for implementation of ITSC policy decisions</li> </ul>	Oversees development, updating and implementation of IT Strategic Plan; ensures compliance with citywide IT mission, goals, guiding principles and policies
Organization-wide technology resource coordination	Change management <ul style="list-style-type: none"> <li>• Communication with departments about IT-related system changes (e.g. major upgrades)</li> <li>• Ensure project success through risk assessment</li> <li>• Evaluate and communicate impacts of change decisions on operations and other IT projects</li> </ul>	Coordinates annual IT program goal-setting processes and review of ad hoc project requests <ul style="list-style-type: none"> <li>• Pre-screening of proposals for possible ITSC review</li> <li>• Communicates plans and results to ITSC, M-Team and the organization</li> </ul>
Information sharing and communication coordination <ul style="list-style-type: none"> <li>• Communicate to city departments</li> <li>• Coordinate with departments, other stakeholders</li> </ul>	Service Level Management <ul style="list-style-type: none"> <li>• Communication regarding citywide technology service offerings and related service levels</li> <li>• Identification of special user departmental needs and those not adequately met</li> </ul>	Coordinates system-level change management processes (e.g. major system upgrades, etc); communicates impacts of change decisions
Project evaluation and prioritization <ul style="list-style-type: none"> <li>• Use of Concept Papers (Diagram 3) to review and discuss: <ul style="list-style-type: none"> <li>- Alignment with budget priorities</li> <li>- Scope, logic, complexity and risk</li> <li>- Citywide impacts to resources, operations and cross-departmental impacts</li> </ul> </li> <li>• Debriefs to understand successes, challenges and to appropriately plan for the future</li> </ul>	Work plan management <ul style="list-style-type: none"> <li>• Alignment of resources and scheduling at an operational level as guided by the IT Asset Governance plan (see Appendix A)</li> <li>• New technology visioning and evaluation</li> </ul>	Coordinates the implementation of approved IT work plans with TAC and departments <ul style="list-style-type: none"> <li>• Fulfills roles per IT Asset Governance plan (see Appendix A)</li> <li>• Charters project teams</li> <li>• Negotiates, monitors and reports performance related to service-level requirements</li> <li>• Facilitates communications on project statuses</li> <li>• “Lessons learned” reviews</li> </ul>

### III. Technology Project Approval and Governance

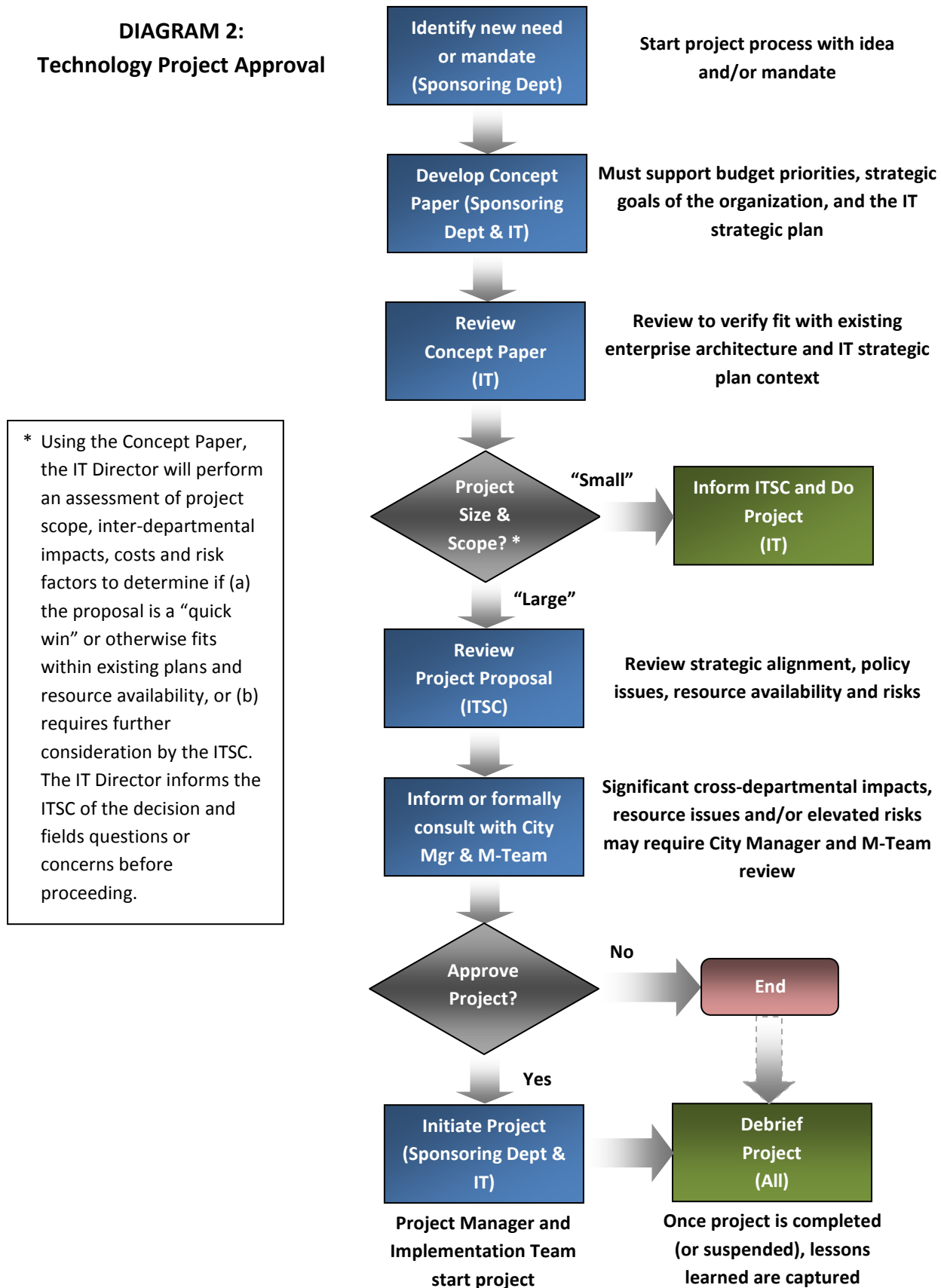
The project decision-making process is outlined as follows (also see Diagram 2):

- Ideas or requests for IT projects to address business needs generally originate in user departments, IT or in ITSC-charted sub-teams. IT and department staff work in partnership to scope and justify IT projects via development of Concept Papers (see Diagram 3). Projects that fit into existing IT Department services and work programs do not need to be elevated to the ITSC, but are prioritized and scheduled by the IT Director based on overall program objectives for the year. The IT Director keeps the ITSC informed of these initiatives.
- The annual IT program planning cycle is part of the annual budget process to ensure alignment with newly-defined city goals and budget priorities. Quarterly IT Strategic Plan and work plan status updates serve to identify evolving trends in anticipation of the annual IT planning and citywide budget cycles. Each year's IT Strategic Plan revision and annual work plan proposal is presented to the City Manager and M-Team for feedback. The results are reflected in annual updates to the citywide IT Strategic Plan, IT Capital Improvement Program (CIP) and (as applicable) operating budget proposals for the fiscal year.
- New or re-scoped projects outside the formal planning cycle are to be expected as new needs or opportunities arise. These "out-of-cycle" projects are handled on a case-by-case basis to ensure they fit with the existing IT Strategic Plan and annual program goals. If a project is a large investment, requires additional resources or is highly visible, the IT Director will typically recommend that ITSC review it for prioritization in the current plan or suspension. (Note: During these reviews, ITSC may require formal business cases, especially for projects that are more complex, costly and risk-prone.) The ITSC may find that some projects require City Manager and M-Team review based on scope and possible impacts.
- Once approved at the appropriate level, the ITSC transfers ownership of the project portfolio to IT and the sponsoring department to begin the implementation process. IT and user departments work collaboratively to successfully complete projects.

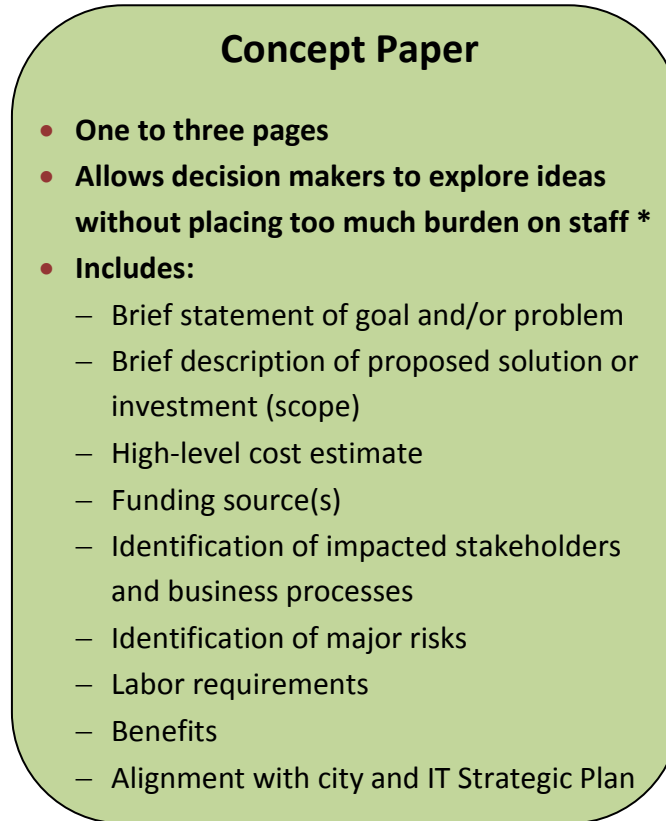
Once a project is approved, it enters the project life cycle. It receives direct project oversight and ongoing review by various entities.

- A project manager is assigned to coordinate project activities and ensure the overall success of the initiative. This is further accomplished through an approved project plan. The assignment of a project manager is guided by the Project Management Responsibility Matrix (Diagram 4)
- The IT project manager reports project activities to the project's assigned steering committee. Note: All medium-to-large projects have a steering committee. Each steering committee reports project status to the Information Technology Steering Committee (ITSC).

**DIAGRAM 2:  
Technology Project Approval**



### DIAGRAM 3: Concept Paper Overview



\* **Note:** Formal business case documents may be required by the ITSC for larger, more complex and risk-prone projects. A business case is:

- More formal.
- Requires a more thorough financial analysis.
- Includes more detailed analysis of alternatives considered.
- Addresses the question of Return on Investment (ROI).
- Covers staffing and operating implications at a more detailed level.

**DIAGRAM 4: Project Management Responsibility Matrix**

Each project requires different mixes of technical and business process knowledge based on the unique nature of each project. The model below serves as a guide to determine the preferred project manager profile for each initiative.

